FILED
02/16/21
04:59 PM

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding Microgrids Pursuant to Senate Bill 1339 and Resiliency Strategies.	Rulemaking 19-09-009

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E) COMPLIANCE FILING REGARDING MICROGRID INTERCONNECTIONS

M. GRADY MATHAI-JACKSON

Pacific Gas and Electric Company
77 Beale Street. B30A
San Francisco, CA 94105
Telephone: (415) 973-3744
Facsimile: (415) 973-5520
E-Mail: Grady.Mathai-Jackson@pge.com

Attorneys for
PACIFIC GAS AND ELECTRIC COMPANY

Dated: February 16, 2021

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding Microgrids Pursuant to Senate Bill 1339 and Resiliency Strategies.	Rulemaking 19-09-009

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)
COMPLIANCE FILING REGARDING MICROGRID INTERCONNECTIONS

Pursuant to Ordering Paragraph 4 of Decision 20-06-017 ("Track 1 Decision"), Pacific Gas and Electric Company ("PG&E") submits as Attachment A its compliance report describing PG&E's implementation of the interconnection proposals adopted in the Track 1 Decision and PG&E's success in meeting Rule 21 interconnection timelines for projects using those specific interconnection proposals.

Respectfully Submitted,

By: */s/ M. Grady Mathai-Jackson*
M. GRADY MATHAI-JACKSON

Pacific Gas and Electric Company
77 Beale Street, B30A
San Francisco, CA 94105
Telephone: (415) 973-3744
Facsimile: (415) 973-5520
E-Mail: Grady.Mathai-Jackson@pge.com

Attorneys for
PACIFIC GAS AND ELECTRIC COMPANY

Dated: February 16, 2021

ATTACHMENT A

PACIFIC GAS AND ELECTRIC COMPANY

COMPLIANCE REPORT PURSUANT TO ORDERING PARAGRAPH 4 OF DECISION 20-06-017

PACIFIC GAS AND ELECTRIC COMPANY COMPLIANCE REPORT PURSUANT TO ORDERING PARAGRAPH 4 OF DECISION 20-06-017

I. Purpose

In compliance with the California Public Utilities Commission's ("Commission" or "CPUC") Ordering Paragraph ("OP") 4 of Decision (D.) 20-06-017, *Decision Adopting Short-Term Actions to Accelerate Microgrid Deployment and Related Resiliency Solutions* (the Decision), Pacific Gas and Electric Company (PG&E) hereby submits this compliance filing.

II. Background

The Commission initiated Rulemaking ("R.") 19-09-009 to develop a policy framework surrounding the commercialization of microgrids and related resiliency strategies and to implement Senate Bill (SB) 1339 (Stern, 2018).

On December 20, 2019 the assigned Commissioner's Scoping Memo and Ruling was issued, adopting a scope and schedule for Track 1 of the proceeding. Track 1 addressed deploying resiliency planning in areas that are prone to outage events and wildfires, with the goal of establishing key microgrid and resiliency strategies as soon as possible. Subsequently, on January 21,2020, the assigned Administrative Law Judge issued a Ruling with Energy Division staff's ("Staff's") proposal on short-term actions related to microgrids and other resiliency strategies that could be initiated in early 2020 to reduce the impact of public safety power shutoff ("PSPS") outages or other catastrophic events.

On June 11, 2020, the Commission adopted D.20-06-017, which approved certain Staff proposals for prioritizing and streamlining interconnection applications to deliver resiliency services at key sites and locations. Ordering Paragraph (OP) 4 requires PG&E, Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) (collectively, the "Utilities") to submit a compliance filing by February 15, 2021,[1] that describes the results of implementing those proposals.[2] The Decision also required the utilities to discuss with Staff what information is necessary for the compliance filing.

On December 10, 2020, the Utilities met with Energy Division staff to discuss additional elements to be included in this compliance filing. In sections below, PG&E addresses:

A. Description of the number of projects that utilized the interconnection proposals adopted in this decision. The interconnection proposals from OPs 1, 2 and 3 from D.20-06-017 are respectively:

   - Single-Line Diagrams ("SLDs");

[1] Because this date fell on a Commission holiday, PG&E is submitting this filing on the next business day.

[2] In PG&E Advice Letter 5878-E, PG&E explained why at that time it would not be proceeding with accepting a remote inspection in lieu of an in-person field inspection. PG&E Advice Letter 5917-E explained that PG&E was not seeking to increase staffing levels for Rule 21 interconnection requests.

- Virtual Inspections; and
- Staffing levels.

B. The success in meeting Rule 21 interconnection timeliness;

C. if any project experienced a delay, the utility shall provide an explanation about why the project was delayed; and

D. The utilities shall track the number and type of projects that use the template-based interconnection process adopted in Interconnection Proposal 1.

III. Pre-Approved Template Single-Line Diagrams

Following the issuance of D.20-06-017, PG&E's submitted Advice Letter ("AL") 5877-E. Included in the advice letter was a proposal for five template single-line diagrams. These were:

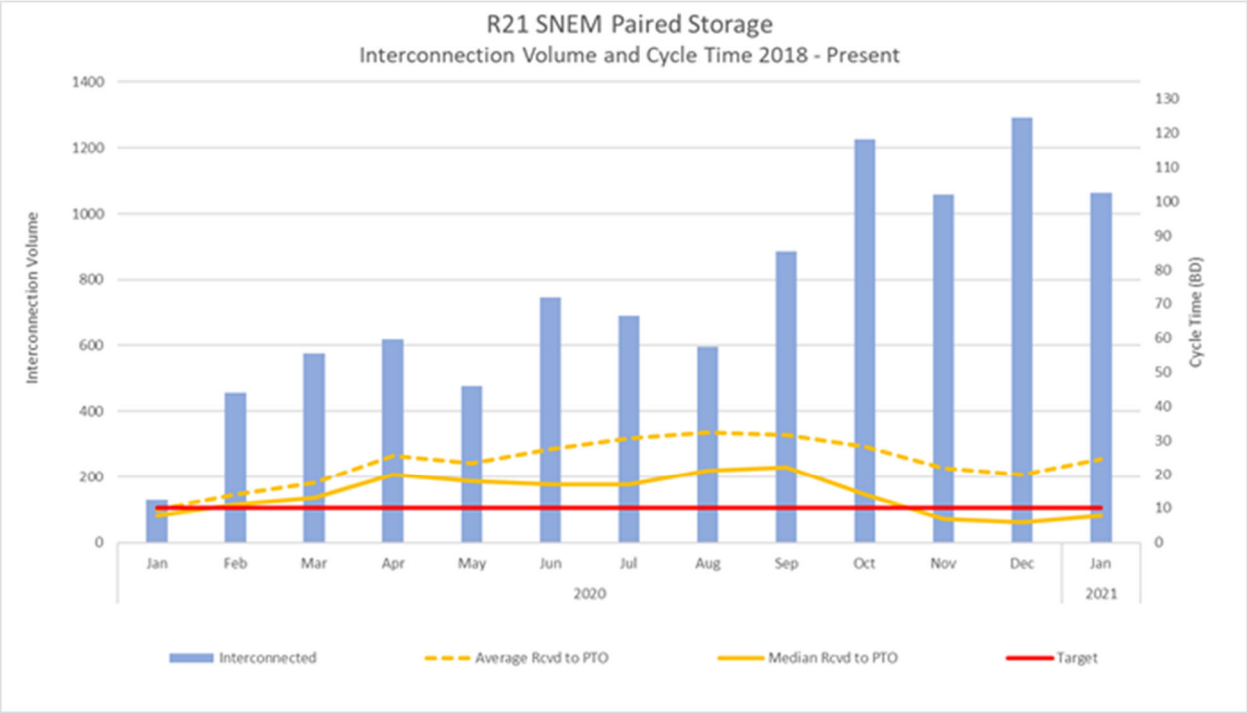
1. Rule 21 SNEM - SNEM with inverter nameplate rating less than or equal to 30 kVA/kW
2. Rule 21 SNEM Paired Storage (DC coupled) - DC coupled SNEM Paired Storage Systems with inverter nameplate rating less than or equal to 30 kVA/kW and Storage less than or equal to 10 kVA/kW
3. Rule 21 Non-Export – Protection Option 3 - Storage Systems with inverter nameplate rating less than or equal to 10 kVA/kW
4. Rule 21 Non-Export – Protection Option 6 - Storage Systems with inverter nameplate rating less than or equal to 10 kVA/kW
5. Rule 21 SNEM Paired Storage (AC coupled) - AC coupled SNEM Paired Storage Systems with PV inverter nameplate rating less than or equal to 30 kVA/kW and Storage inverter less than or equal to 10 kVA/kW

PG&E noted in AL 5877-E that currently on PG&E's application portals, SLDs can be uploaded with an application. Applicants can manually select one of the standard SLDs to upload. In the future, SLDs will be selected by the applicant on a menu, and once selected, automatically uploaded to PG&E's ACE-IT Portal. The application portal logic/automation for implementing these changes will be in place in the next 30-60 days.

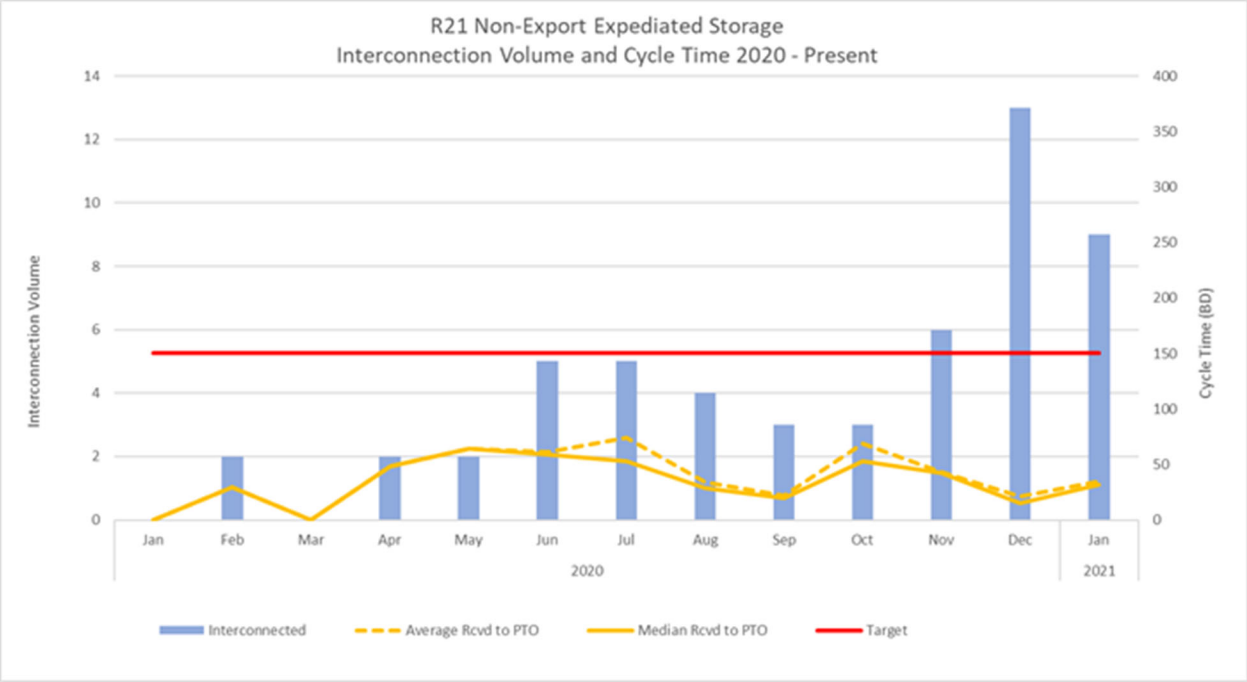
PG&E had originally anticipated the portal logic/automation being done in the late fall last year, but it has not yet implemented these changes as it is seeking to consolidate this work with other changes planned to its ACE-IT Portal. For example, SNEM Paired Storage (AC coupled) was scheduled to be released with other initiatives for implementation efficiency (for example in this case, AL 5938-E but this AL has not yet been approved). PG&E is planning to have these completed shortly. In the longer term, PG&E would like the SLDs to feed into our engineering

analysis software (CYME) so that even more efficiency can be garnered. In the interim, PG&E is displaying the SLD templates on the application landing page so applicants can select them.

The two charts below illustrate the Average and Median Cycle Times for interconnected SNEM Paired Storage and Non-Export Expediated Storage projects with applications received dates on or after January 2020. The expectation is that cycle times from Application Received to Permission to Operate ("PTO") would improve with the usage of pre-approved SLD templates made available on the portal in late August 2020. For SNEM Paired Storage projects, the first chart shows some cycle time improvement. However, the second chart does not show visible improvement for Non-Export Expedited Storage interconnect requests.



Note that despite significant application volume increases, starting shortly after July 2020, the average (dashed yellow line) and median time (solid yellow line) for application-received to PTO decreased notably. As can be seen, there were improvements in cycle times but whether this is directly attributable to the SLDs, but PG&E cannot conclude with certainty.



For the Rule 21 Non-Export Expedited Storage the improvements, the improvements are less obvious. However, it is worth noting that as volume went up in December 2020, mean and median times went down. While it cannot be confirmed with certainty that is attributable to the SLDs, or that all of the improvement shown are for resiliency projects, the data shows there generally have been improvements in cycle times.

IV. Remote Virtual Inspections

Following the issuance of D. 20-06-017, PG&E's submitted AL 5878-E.[3] In the AL, PG&E noted "at this time [PG&E] will not be proceeding with accepting a remote inspection in lieu of an in-person field inspection."[4] Under PG&E's current guidelines, only a small subset - about 4% of application interconnection requests - require field inspections and only in specific scenarios. The scenarios are: For generating facilities that employ protective relays, Automatic Transfer Switches (ATSs), or unapproved power control systems; For certified inverter-based technology where an AC Disconnect is required; For Projects that include variance requests or other interconnection deviations that inherently require a field inspection (e.g. for Net Generation Output Meter (NGOM) installations; Line side tap variances; Meter replacement; Smart Meter opt out, Partial system Conditional Permission to Operate; and/or Green Meter Adapter installations.)

For the other nearly 96% of the cases, PG&E does not require field Inspections.[5]

---

[3] AL 5878-E *Inspection Process for PG&E's Rule 21 Interconnection Application Process, Pursuant to Decision 20-06-017*, submitted July 16, 2020.

[4] *Id.*, p. 2.

[5] *Id.* pp. 3-4.

Since PG&E did not revise its inspection process to adopt a virtual process, PG&E cannot provide data as to the number of customers who underwent a revised inspection process. However, in the table below PG&E's current field metering data demonstrates that its current inspection practices are effective with very minimal delay. As shown in the following table, PG&E's success rate for completed field inspections within 10 days was 98.32%. For the benefits[6] the small number of onsite inspections PG&E performs afford, PG&E continues to believe that revising its processes to make them all virtual would require significant effort and may only yield minimal (if any) improvement.

Work Type	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Total
Projects auto-passed	**4916**	**4956**	**5507**	**5547**	**5125**	**5351**	**31402**
Field inspections completed within 10 days	347	281	292	366	315	384	**1985**
Field inspections not completed within 10 days	2	3	2	2	10	15	**34**
Total field inspections completed	349	284	294	368	325	399	**2019**
Total projects	5265	5240	5801	5915	5450	5750	**33421**
Percent of total projects requiring field inspection	6.63%	5.42%	5.07%	6.22%	5.96%	6.94%	**6.04%**
Percent of field inspections completed within 10 days	99.43%	98.94%	99.32%	99.46%	96.92%	96.24%	**98.32%**

Since PG&E believes its inspection process has struck the right balance between efficiency, safety, and reliability, and has therefore maintained its current process, PG&E is not able to directly attribute any improvements to changes made. The numbers above represent all

[6] In AL 5878-E p 4, PG&E stated: "PG&E currently only requires field inspections in about 4% of interconnection requests and, for inverter-based projects where field inspection is only needed because a required AC Disconnect is installed, PG&E schedules and completes field inspections in 5.65 calendar days, on average. However, historic data shows that 15% of these inverter-based projects fail field inspection for various Greenbook violations. PG&E has found that all of these failures would compromise safety and reliability and were identified because of the in-person field inspection. With this in mind, PG&E believes that a virtual inspection process would compromise safety and reliability at this time. PG&E will continue to monitor failure rates and commit to implementing a virtual inspection process when safety and reliability are not at risk, and it would result in more timely and responsive inspections."

interconnection, not just those for resiliency projects. PG&E inspection group does not distinguish between the resiliency projects and others.

V. Rule 21 Interconnection Request Staffing Levels

Following the issuance of Decision 20-06-017, PG&E's submitted AL 5917-E to address the question of staffing raised in OP 3. In AL 5917-E, PG&E noted:

> New individual contributor roles dedicated to process improvement and technology implementation were established. Also, new leaders were appointed at the supervisor, manager and director levels. In addition, PG&E has reviewed its Distribution Planning team and no additional staffing plans are seen as necessary at this time, but again that could change as the need arises.

Since AL 5917-E was submitted and approved, PG&E's interconnection team (Electric Grid Interconnection (EGI)) has undertaken steps to increase its staffing by 23 new employees for its Rule 21 Interconnection (which include net energy metering). EGI anticipates its hiring to be complete by the end of the first quarter 2021. Based on these staffing changes, 2021 foresees a year of expansion and stabilization. The additional staffing will have the added benefit of freeing up seasaoned employees to permit them more follow-up time and increased levels of customer service. PG&E expects to see a significant measurable difference by the end of 2021.

To expedite the training of new employees, PG&E's EGI team has created a special team where the new interconnection employees will receive support and be able build bench strength. The newest members will be able to bootstrap their interconnection knowledge through a new onboarding program that has been setup. This onboarding program is not just a program for new employees, but it also includes a refresher program for seasoned employees. New tools are also being introduced this year to support employees so they can more easily reference policies, processes, and procedures. EGI estimates new staff will be at 35% productivity by the end of the third quarter 2021, with that number increasing significantly thereafter.

VI. Conclusion

While progress can be seen so far, PG&E expects this coming year to show significant additional progress in the interconnection of resiliency projects, chiefly due to increased staffing levels and as that staffing becomes proficient at interconnections.